ANGULATION AT THE SIGMOID.

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THIS condition, to which attention was recently called by Dr. H. Beekman Delatour, in the ANNALS OF SURGERY (Nov. 1905), while perhaps more common than is generally supposed is yet sufficiently rare to justify a more or less detailed report of every case observed. The following case is worthy of being placed on record since the condition was recognized and remedied at operation, since which the patient has been absolutely free from symptoms. The woman was a patient of Dr. Stuart McGuire at St. Luke's Hospital, through whose courtesy I was enabled to study the case and to whom I am indebted for the privilege of this report.

Miss Y. About four years ago, at the time of her graduation from school, she had a mild attack of dysentery confining her to bed a few days. She has always led an active life and was always remarkably healthy. She has taught school about four or five years.

In the latter part of the fall of 1902 while visiting away from home, was seized one evening while dancing by an attack of severe colicky abdominal pain, nausea and vomiting, so that she had to give up dancing. This pain was attributed at the time to dietetic error and the next day she was comfortable except for general abdominal soreness. Within the course of a few days she was tolerably well, however, except for marked constipation. During the winter there were occasional recurrences of such paroxysms and constipation became so marked as to necessitate purges.

From March 17, 1903, she suffered for about a month with paroxysms of intermittent violent pain of the type of intestinal colic, attended by nausea, obstinate vomiting, marked constipation, great abdominal distention, and with it all she was completely prostrated. She was operated upon at her home for

intestinal obstruction. Upon opening the abdomen no obstruction was found, but the appendix, slightly adherent, was removed. During convalescence from the operation, the distention and other symptoms persisted, and constipation was absolute for seven days. Upon getting up she noticed persistent abdominal distention. Her physician treated her almost continuously, especially for constipation, and was forced to administer enormous doses of strong purgatives. Licorice powder would generally be fairly effectual.

The distention persisted, constipation has become more marked, and she has frequently suffered violent acute paroxysms of pain, nausea, vomiting and prostration.

In January, 1904, not having improved, she was operated upon again and her uterus, slightly retro-displaced, was suspended, with no effect on the symptoms.

She has continued to suffer recurrent paroxysms of violent pain, vomiting and prostration; abdominal distention has persisted and she has not had a proper evacuation of the bowels in "three years." She has had to continue taking purges and enemata and came to St. Luke's Hospital for treatment.

Collateral facts elicited in the history were of diagnostic value. She has frequently noticed the passage of a little blood by the bowels and on two or three occasions this amounted to a "couple of tablespoonfuls" of dark and clotted blood; she has noticed none of this during the past six months. The evacuations have been made up largely of mucus, at times in very marked quantities and in large flakes, especially in the second and third enemata. Purges produce violent increase of pain; enemata and the passage of rectal tubes are agonizing. There is never the slightest evacuation nor desire for such spontaneously; frequently two or three enemata are required and these are only partially successful. There has never been a formed movement.

On one or two occasions she has had pain of similar type but having the location and radiation of right sided renal colic. Her physician has found leucocytes, red cells and small quantities of albumen in her urine.

For the past year she has had dysmenorrhea, and purgation occasionally precipitates menstruation.

She is otherwise well and hopeful. She has had no fever nor

chill nor been unconscious, though during the pain she is violently prostrated. There have been no crying paroxysms, convulsions nor stupor.

Upon admission to St. Luke's Hospital she was suffering a violent attack with great distention, rapid pulse, and other signs of a moderate degree of shock. After several days and repeated efforts, a partial evacuation from the lower bowel was secured. Sometime later during the course of vaginal examination the rectum was found impacted with fæces. Examination of the pelvic organs was negative. During the first two or three days of June, 1906, she suffered again a violent paroxysm similar in character to the above; a week later, after sigmoidoscopic examination, another attack, and the following day after cathartic pills a most violent one. The abdomen was markedly distended all over and there was a transverse constriction at the waist line, *i.e.*, just above the umbilicus. Respiratory mobility is unimpaired. Measurements are as follows: at the xiphoid cartilage, 30 inches; half-way between xiphoid and umbilicus, 28¾ inches; at the umbilicus 29¼ inches; half-way between the umbilicus and the pubis 32½ inches. There is some lordosis in the lumbar region, but this is due to prominence of the buttocks rather than to any spinal curvature. There is slight general abdominal tenderness, somewhat more marked on the right side. Nearly the whole of the colon is palpable, but none of the other abdominal organs can be felt. The abdominal rigidity is that only of distension. Percussion notes a general tympany and diminished area of liver dulness; the splenic area cannot be outlined. There is no area of circumscribed dulness. Auscultation elicits slightly exaggerated sounds incident to peristalsis. Auscultatory percussion is entirely negative.

At this point a provisional diagnosis of incomplete intestinal obstruction was based on the following: (1) A history of recurrent attacks of violent abdominal pain attended with nausea, vomiting and moderate shock (prostration) and a number of times followed by the passage of blood; (2) obstinate, almost absolute, constipation; (3) intestinal distention; (4) hypertrophy of the colon.

Rectal Examination: Externally no sign of disease is seen. Marked pulsation of the hemorrhoidal arteries is noted and

the rectum is empty. The passage of a proctoscope is attended by agonizing pain in spite of the previous administration through the rectal tube of a pint of olive oil. There is an area about eight inches from the external sphincter in which there is greatly exaggerated tenderness and distinct resistance, though this is finally overcome and the instrument passed sixteen inches into the bowel. Inspection notes an apparently sessile growth projecting into the lumen of the canal just above the junction of the sigmoid and the rectum. The mucous membrane of the rectum is moderately red but shows no signs of localized disease and is empty. The sigmoid contains a small quantity of fecal matter and its mucous membrane is thrown into folds and hypertrophied. There are no ulcers and only moderate inflammation. There are no signs of hemorrhoids, fistula, nor fissure. The examination was agonizing to her though she bore it bravely. The colic and local pain persisted until 4 o'clock in the afternoon at which time it was relieved by $^1/_{12}$ gr. morphine administered hypodermically.

Cœliotomy was performed June 11, 1906, by Dr. McGuire. The large intestine was distended with gas and fæces; the rectum was empty. A careful search was made of the entire intestinal canal. The sigmoid was found attached by a very short mesosigmoid, causing rather sharp angulation. The colon above this point was filled with fecal matter and the rectum empty. After dividing the short mesosigmoid the fæces were easily manipulated into the rectum. Continuing the examination there was noted some adhesion of the omentum about the stomach. From the sense of touch it was impossible to find any lesion of the mucous membrane.

What had seemed to be a growth arising from the mucous membrane, as seen through the sigmoidoscope, proved to be an invaginated portion of the mucous membrane of the sigmoid flexure through the portion constricted by its short mesenteric attachment, and causing angulation of this part of the gut.

The uterus was held anteriorly by an artificial ligament about an inch long, resulting from a previous ventro-suspension. The old scar was dissected out and the abdominal wall united in layers.

Convalescence was uninterrupted and on the third day following operation a painless bowel evacuation was secured by the

administration of two drams of extract of cascara followed by a simple enema. At the present time she is entirely free from symptoms.

I believe that the condition of angulation should be recognized in the future since the subject has been so admirably described by Dr. Delatour.

Since Dr. Emil Reis called attention in the ANNALS OF SURGERY (Oct. 1904) to mesosigmoiditis in its relation to recurrent volvulus of the sigmoid flexure, it would be interesting to know how much causative effect can be attributed in this case of angulation, to the previous attack of dysentery. Since this affection, when it attacks the sigmoid flexure, may be, and frequently is attended by inflammation of the mesosigmoid, it is logical to believe that the contraction of such inflammatory tissue after recovery might easily produce shortening of the mesosigmoid. Could this have been the case in the patient whose record is here reported?